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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,209	05/12/2006	Toshiharu Taguchi	290311US0PCT	6655
22850 7590 07/31/2009 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER SULLIVAN, DANIELLE D				
ART UNIT		PAPER NUMBER		
1616				
NOTIFICATION DATE		DELIVERY MODE		
07/31/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/579,209

**Applicant(s)**

TAGUCHI ET AL

**Examiner**

DANIELLE SULLIVAN

**Art Unit**

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 1-3, 14 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 14 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S5108)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Claims 1-16 are pending. Claims 4-13 and 15 are withdrawn as being drawn to a non-elected invention. Claims 1-3, 14 and 16 are under examination. Claim 16 was added in the amendment filed 5/08/2009.

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/08/2009 has been entered.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (JP 09201424, machine translation).

### **Applicant's Invention**

Applicant claims a deodorant comprising powder of an amine salt of a phosphorus inorganic acid, the powder having an average particle diameter of 5 to 20 microns. Claim 2 limits the amine salt to an ammonium salt. Claim 16 specifies the deodorant comprises 0.5-20% of the phosphorus inorganic acid salt.

### **Determination of the scope and the content of the prior art (MPEP 2141.01)**

Ito et al. teach a fire extinguishing agent comprising a mixed powder of mainly ammonium dihydrogen phosphate and ammonium sulfate having diameters ranging 1.5 to 53 microns (abstract). The powder is passed through sieves measuring 20 microns and may be optimized to have a specific particle diameter size distribution [0017 and 0018]. The formulation is applied to wood fires via a pressure container [0002]. The powder is given a water-repellent finish by adding silicone to raise fire extinguishing performance [0004]. If the particle size of the powder is reduced improvement in fire extinguishing performance is expected [0005].

### **Ascertainment of the difference between the prior art and the claims (MPEP 2141.02)**

Ito et al. do not specifically teach the average particle diameter of ammonium dihydrogen phosphate ranges from 5 to 20 microns. However, Ito et al. teach ammonium phosphate powder is passed through sieves measuring 20 microns and may be optimized to have a specific particle diameter size. Additionally, Ito et al. teach that

as the particle size of the powder is reduced, improvement in fire extinguishing performance is expected.

Ito et al. do not teach the composition comprises 0.5-20% of the phosphorus inorganic acid salt. In view of *In re Aller, Lacey, and Hall*, 105 USPQ 233 (C.C.P.A. 1955), change in concentration is not a patentable modification, however, such changes may impart patentability to process if ranges claimed produce new and unexpected results.

### **Finding of prima facie obviousness**

#### **Rationale and Motivation (MPEP 2142-2143)**

It would have been obvious to one of ordinary skill in the art at the time of the invention in view of Ito et al. to utilize phosphates containing particles of average diameter ranging from 5 to 20 microns. One would have been motivated to manipulate ranges during routine experimentation to discover the optimum or workable range since Ito et al. teach ammonium phosphate powder is passed through sieves measuring 20 microns and may be optimized to have a specific particle diameter size. Furthermore, Ito et al. teach that as the particle size of the powder is reduced, improvement in fire extinguishing performance is expected.

Claims 3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (JP 09201424, machine translation) in view of Pearson (US 4,552,803).

### **Applicant's Invention**

Applicant claim the composition as addressed in above 103(a) rejection. Claim 3 further defines a deodorant product comprising the composition. Claim 14 defines a plywood board comprising the composition.

### **Determination of the scope and the content of the prior art**

#### **(MPEP 2141.01)**

The teachings of Ito et al. are addressed in above 103(a) rejection.

### **Ascertainment of the difference between the prior art and the claims**

#### **(MPEP 2141.02)**

Ito et al. do not teach a deodorant product or that the composition is used on plywood. It is for this reason that Pearson is joined.

Pearson teaches a fire-retardant powder which does not have objectionable odors (deodorant) (column 1, lines 49-51). The powder comprises ammonium phosphate (column 2, lines 1-12). The invention is incorporated in making plywood and particle board to protect against fire hazard problems (column 1, lines 35-40; column 4, lines 34-37). The powder may be reduced in size by grinding (column 4, lines 8 and 9).

### **Finding of prima facie obviousness**

#### **Rationale and Motivation (MPEP 2142-2143)**

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Pearson and Ito et al. to incorporate the formulate a deodorant. One would have been motivated to formulate a deodorant because

Pearson teaches the use of ammonium phosphate in fire-retardants which do not have objectionable odors.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Pearson and Ito et al. to incorporate the composition onto plywood board. One would have been motivated to treat plywood with the composition because Pearson teaches impregnating plywood with fire resistant powders comprising ammonium phosphate prevent fire hazard problems.

### ***Response to Arguments***

Applicant's arguments filed 5/08/2009 have been fully considered but they are not persuasive.

Applicant argues that one would not have reasonably expected that selecting ammonium phosphate would have deodorized objectionable formaldehyde odors. Applicants further argue that a fire extinguishing composition, not a deodorant composition, is disclosed in the prior art. The Examiner disagrees with applicants arguments. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. The combination of Pearson, Kekish et al. and Ito et al. teach applying ammonium phosphate to the plywood. Since the claims are drawn to a composition, and not a method of deodorizing formaldehyde odors, the prior art meets the claim by teaching an amine salt of a phosphoric acid applied to plywood.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danielle Sullivan whose telephone number is (571) 270-3285. The examiner can normally be reached on 7:30 AM - 5:00 PM Mon-Thur EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on (571) 272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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